

WHAT IS CLAIMED IS:

1. An enclosure for electronic components comprising:
  - an electronics housing including at least one slot for receiving one or more electronic components, the slot being defined by a plurality of walls; and
    - a heat pipe system associated with the slot for dissipating heat produced by the one or more electronic components housed therein, the heat pipe system including:
      - a heat pipe having a first portion embedded into one of the walls defining the slot for conducting heat from the wall to a second portion of the heat pipe extending out of the electronics housing; and
        - at least one cooling fin carried by the second portion of the heat pipe such that heat from the heat pipe is conducted into the fin and the fin dissipates the heat to the ambient atmosphere outside of the electronics housing.
  2. The electronics enclosure according to claim 1 wherein the electronics housing includes a plurality of slots.
  3. The electronics enclosure according to claim 2 wherein each slot has an associated heat pipe system.
  4. The electronics enclosure according to claim 1 wherein the heat pipe system includes a plurality of heat pipes each having a first portion embedded into one of the walls defining the slot for conducting heat from the wall to a second portion extending out of the electronics housing.

5. The electronics enclosure according to claim 1 wherein a plurality of cooling fins are carried by the second portion of the heat pipe.

6. The electronics enclosure according to claim 1 wherein the at least one cooling fin is surrounded by a protective cover that is ventilated.

7. The electronics enclosure according to claim 1 wherein the electronics housing includes a door that is movable into an open position for accessing the slot.

8. An enclosure for electronic components comprising:  
an electronics housing including a plurality of slots each of which is configured to receive one or more electronic components, each of the slots being defined by a plurality of slot walls; and

a respective heat pipe system associated with each slot for dissipating heat produced by the one or more electronic components housed therein, each of the heat pipe systems including:

a plurality of heat pipes each having a first portion embedded into one of the slot walls for conducting heat from the wall to a second portion of the heat pipe extending out of the electronics housing; and

the second portion of each heat pipe being connected to a cooling fin such that heat from the heat pipe is conducted into the fin and the fin dissipates the heat to the ambient atmosphere outside of the electronics housing.

9. The electronics enclosure according to claim 8 wherein a plurality of fins are connected to the second portion of each of the heat pipes.

10. The electronics enclosure according to claim 9 wherein the fins are surrounded by a protective cover which is ventilated.
11. The electronics enclosure according to claim 9 wherein each cooling fin is connected to a plurality of heat pipes.
12. The electronics enclosure according to claim 8 wherein heat pipes extend out of opposing sides of the electronics housing.
13. The electronics enclosure according to claim 8 wherein the electronics housing includes a door that is movable into an open position for accessing the slots.
14. A repeater enclosure for a plurality of repeater cards comprising:
  - a card housing including a plurality of slots each of which is configured to receive one or more repeater cards, each of the slots being defined by a plurality of slot walls;
  - a respective heat pipe system associated with each slot for dissipating heat produced by the one or more repeater cards housed therein, each of the heat pipe systems including:
    - a plurality of heat pipes each having a first portion embedded into one of the slot walls for conducting heat from the wall to a second portion of the heat pipe extending out of the electronics housing; and
    - the second portion of each heat pipe being connected to a plurality of cooling fins such that heat from the heat pipe is conducted into the fin and the fin dissipates the heat to the ambient atmosphere outside of the electronics housing; and

a protective cover surrounding the plurality of cooling fins, the protective cover being ventilated to permit the flow of ambient air therethrough.

15. The repeater enclosure of claim 14 wherein each cooling fin is connected to a plurality of heat pipes.

16. The repeater enclosure according to claim 14 wherein the card housing includes a door that is movable into an open position for accessing the slots.